

# Zonulin Family Protein; stool

	RESULT / UNIT		REFERENCE INTERVAL	LOW	MOD	HIGH
Zonulin Family Protein*	30.8	ng/mL	< 80.0	<div><div></div></div>		

This test measures a zonulin family protein (ZFP), identified as properdin. Elevated fecal levels of ZFP have been associated with metabolic syndrome, obesity, and apparently healthy cigarette smokers. High serum levels of ZFP (antigen) are correlated with abnormal results of the Lactulose Mannitol test; the long-accepted standard for intestinal permeability, but to date no such correlation has been reported with fecal ZFP. Excessive intake of simple sugars, sodium, emulsifiers, microbial transglutaminase (food additive) and nano-particles may also be triggers for increased fecal ZFP and intestinal permeability. Possible interventions to restore the gastrointestinal mucosal barrier include dietary changes, treatment of dysbiosis, digestive supports and anti-inflammatory supplements; specifically quercetin, vitamin C, curcumin, gamma-linoleic acid, omega-3 fatty acids (EPA, DHA), and aloe vera. Other nutrients such as zinc, beta-carotene, pantothenic acid, and L-glutamine may provide some support for rejuvenation of the mucosal barrier. The use of some probiotics has been shown to reduce serum and fecal zonulin levels, and inulin (about 10 grams per day) lowered serum zonulin after just five days in healthy young subjects. Consider a Comprehensive Stool Analysis to further investigate potential causes of increased intestinal permeability.

### References:

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SPECIMEN DATA	
Comments:	
Date Collected:	01/09/2024
Date Received:	01/13/2024
Date Reported:	01/17/2024
Methodology:	ELISA

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